

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A process for separating oil from oil-containing solids comprising:

contacting the oil-containing solids with an isohexane solvent to form an extraction mixture;

wherein the isohexane solvent has a wet dew point at 325 mm Hg of at least 97°F and comprises:

at least about 85 wt.% methylpentane; and

~~no more than about 0.1 wt.% hydrocarbons having less than 6 carbon atoms in~~
an amount of no more than about 0.1 wt.%; and

n-hexane in an amount of less than about 1.0 wt. %.

2. (Original) The process of claim 1, wherein the isohexane solvent has a wet dew point at 350 mm Hg of at least 101°F.

3. (Original) The process of claim 1, wherein the isohexane solvent has a wet dew point at 325 mm Hg of no more than 105°F.

4. (Original) The process of claim 1, wherein the isohexane solvent further comprises no more than about 10 wt.% dimethylbutane.

5. (Original) The process of claim 1, wherein the isohexane solvent further comprises no more than about 3 wt.% 2,2-dimethylbutane.

6. (Original) The process of claim 1, wherein the isohexane solvent includes at least about 35 wt.% 3-methylpentane.
7. (Original) The process of claim 1, wherein the isohexane solvent includes no more than about 10 parts per million benzene.
8. (Original) The process of claim 1, wherein the isohexane solvent includes at least about 25 wt.% 3-methylpentane and no more than about 3 wt.% 2,2-dimethylbutane.
9. (Original) The process of claim 1, wherein the oil-containing solids are derived from plant material.
10. (Original) The process of claim 9, wherein the plant material includes material derived from plants selected from the group consisting of corn, soybean, coconut, safflower, sunflower, cotton, rape, sesame, palm, flax, peanut, and any combination thereof.
11. (Original) The process of claim 9, wherein the plant material includes corn germ.
12. (Original) The process of claim 9, wherein the plant material includes soybeans.
13. (Currently Amended) The process of claim 1, wherein the isohexane solvent includes at least about 99.9 wt.% branched saturated aliphatic hydrocarbons having 6 carbon atoms.
14. (Original) The process of claim 1, further comprising separating the extraction mixture into a solids-containing fraction and an oil-containing solvent fraction.
15. (Original) The process of claim 14, further comprising separating the oil-containing solvent fraction into a low solvent-oil fraction and an oil-depleted solvent fraction.

16. (Original) The process of claim 15, wherein separating the oil-containing solvent fraction includes heating the oil-containing solvent fraction under vacuum to form the low solvent-oil fraction which includes no more than about 100 ppm isohexane solvent.

17. (Currently Amended) A process for separating oil from oil-containing solids comprising:

contacting the oil-containing solids with an isohexane solvent to form an extraction mixture;

wherein the isohexane solvent comprises at least 99 wt.% saturated aliphatic hydrocarbons having 6 carbon atoms ~~and has~~ having a wet bubble point at 375 mm Hg of at least 97°F and ~~further comprises:~~ including:

at least about 85 wt.% methylpentane;

~~no more than about 0.1 wt.% hydrocarbons having less than 6 carbon atoms in~~
an amount of no more than about 0.1 wt.%;

2,2 dimethylbutane in an amount of no more than 3 wt.%; ~~dimethylbutane;~~

~~no more than 1 wt.% n-hexane~~ in an amount of no more than about 1 wt.%;

and

no more than 10 parts per million benzene.

18. (Original) The process of claim 17, wherein the isohexane solvent includes at least about 90 wt.% methylpentane.

19. (Cancel) The process of claim 17, wherein the isohexane solvent includes no more than about 3 wt. % 2,2-dimethylbutane.

20. (Original) The process of claim 17, wherein the isohexane solvent has a wet bubble point at 375 mm Hg of no more than 102°F.

21. (Currently Amended) A process for separating oil from oil-containing solids comprising:

contacting the oil-containing solids with an isohexane solvent to form an extraction mixture;

wherein the isohexane solvent comprises:

at least about 84 wt.% methylpentane;

~~no more than about 7 wt.% 2,2-dimethylbutane~~ in an amount of no more than about 7 wt.%;

~~no more than about 0.1 wt.% hydrocarbons having less than 6 carbon atoms~~ in an amount of no more than about 0.1 wt.%;

no more than about 1.0 wt.% n-hexane; and

no more than 10 parts per million benzene.

22. (Original) The process of claim 21, wherein the isohexane solvent includes at least about 35 wt.% 3-methylpentane.

23. (Currently Amended) The process of claim 21, wherein the isohexane solvent includes at least about 99.95 wt.% branched saturated aliphatic hydrocarbons having 6 carbon atoms.

24. (Currently Amended) A process for separating oil from oil-containing solids comprising:

contacting the oil-containing solids with an aliphatic hydrocarbon solvent to form an extraction mixture;

wherein the aliphatic hydrocarbon solvent has a wet bubble point at 760 mm Hg of 134.5°F to 140°F and comprises:

at least about 85 wt.% methylpentane;

~~no more than about 0.1 wt.% hydrocarbons having less than 6 carbon atoms~~ in an amount of no more than about 0.1 wt.%; and

~~no more than about 1.0 wt.% n-hexane~~ in an amount of no more than about 1.0 wt.%;

25. (Original) The process of claim 24, wherein the aliphatic hydrocarbon solvent includes no more than about 10 wt.% dimethylbutane.

26. (Original) The process of claim 24, wherein the aliphatic hydrocarbon solvent includes no more than about 3 wt.% 2,2-dimethylbutane.

27. (Original) The process of claim 24, wherein the aliphatic hydrocarbon solvent includes at least about 30 wt.% 3-methylpentane.

28. (Currently Amended) The process of claim 24, wherein the aliphatic hydrocarbon solvent includes at least about 99.9 wt.% branched saturated aliphatic hydrocarbons.

29. (Currently Amended) The process of claim 24, wherein the aliphatic hydrocarbon solvent includes at least about 99 wt.% saturated aliphatic hydrocarbons.

30. (Original) The process of claim 24, wherein the aliphatic hydrocarbon solvent includes no more than about 0.1 wt.% hydrocarbons having less than 6 carbon atoms and no more than about 10 ppm benzene.

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Cancelled)

35. (Currently Amended) A method of producing a plant based oil product comprising:

separating a solids-containing fraction from an oil-containing solvent fraction; and

transferring energy to the oil-containing solvent fraction in an initial distillation stage to produce a vapor phase at a pressure P in mm Hg and having a temperature of at least X°F and no more than Y°F where:

$$X = 97 + ((P - 350) / 7.14);$$

$$Y = 105 + ((P - 350) / 7.14); \text{ and}$$

P has a value of about 300 to 400 mm Hg;

wherein the isohexane solvent comprises ~~no more than 0.1 wt. %~~ hydrocarbons having less than 6 carbon atoms in an amount of no more than about 0.1 wt. %.

36. (Original) The method of claim 35, wherein:

$$X = 98 + ((P - 350) / 7.14).$$

37. (Currently Amended) The method of claim 35, further comprising contacting an oil-containing solids with an isohexane solvent to form an extraction mixture; and separating the extraction mixture into the solids-containing fraction and the oil-containing solvent fraction; wherein the isohexane solvent comprises

at least about 90 wt.% methylpentane;

~~no more than 1 wt.%~~ n-hexane in an amount of no more than about 1 wt.%;

~~no more than 0.1 wt.%~~ hydrocarbons having less than 6 carbon atoms in an amount of no more than about 0.1 wt.%; and

no more than about 10 parts per million benzene.

38. (Currently Amended) The process of claim 17, wherein the isohexane solvent includes at least about 99 wt.% branched saturated aliphatic hydrocarbons having 6 carbon atoms.

39. (Previously Presented) The process of claim 17, wherein the isohexane solvent includes a wet bubble point at 375 mm Hg of at least 98°F.

40. (Previously Presented) The process of claim 17, wherein the isohexane solvent includes at least about 30 wt.% 3-methylpentane.

41. (Currently Amended) The process of claim 17, wherein the isohexane solvent includes no more than about 1 wt.% 2,2-dimethylbutane.

42. (New) The process of claim 21, wherein the isohexane solvent includes no more than about 5 wt.% 2,2-dimethylbutane.

43. (New) The process of claim 21, wherein the isohexane solvent includes no more than about 3 wt.% 2,2-dimethylbutane.

44. (New) The process of claim 21, wherein the isohexane solvent includes no more than about 1 wt.% 2,2-dimethylbutane.

45. (New) A process for separating oil from oil-containing solids comprising:
- contacting the oil-containing solids with a solvent to form an extraction mixture;
- wherein the solvent has a wet bubble point at 375 mm Hg of at least 97°F and includes methylpentane, 2,2-dimethylbutane, hydrocarbons having less than 6 carbon atoms, and n-hexane;
- wherein methylpentane is in an amount of at least about 84 wt.%;
- wherein 2,2-dimethylbutane is in an amount of no more than about 7 wt.%;
- wherein hydrocarbons having less than 6 carbon atoms is in an amount of no more than about 0.1 wt.%; and
- wherein n-hexane is in an amount of no more than about 1.0 wt.%.